

UCSD p-System^{*}



- Editor
- Filer
- Utilities

Part One: UCSD p-System Editor

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SECTION 1: GENERAL INFORMATION

The UCSD p-System* Editor provides you with a text editor for entering text or programs into the p-System. Using the Editor, you can write and edit programs in any of the p-System programming languages: UCSD Pascal*, BASIC, Assembly, and Pilot. The Editor is designed with powerful editing features, giving you the necessary flexibility to make the changes you want with a minimum of effort. The editing capabilities let you:

- Insert and delete characters.
- Adjust the position of the information on the screen by single characters or with column tabs.
- Type over old information, replacing it with new text as you go.
- Copy information from the copy buffer or another file.
- Locate specific words within the text or program.

In addition to the TI Home Computer and a TI Color Monitor (or TI Video Modulator and a television set), the Editor requires the use of the TI Memory Expansion unit, the TI P-Code peripheral, and the TI Disk Memory System (TI Disk Drive Controller and up to three Disk Memory Drives).

After the Editor has been loaded, a promptline showing the Editor commands appears at the top of the screen. The Editor commands, which are accessed by single keystrokes, are the communication interface with the various Editor functions. Pressing a key causes either an action to be performed or another promptline to be displayed, detailing new commands available at a different level.

Note: The Editor diskette contains two additional files, called *SYSTEM.SYNTAX and *SYSTEM.PASCAL. If *SYSTEM.SYNTAX is present and an error is detected by the Compiler program (see the UCSD p-System Compiler manual), an error message is displayed; otherwise, only an error number appears. The file *SYSTEM.PASCAL changes information related to the Operating System if this file is located in the first disk drive when the system is turned on. The segments contained in *SYSTEM.PASCAL are copied into the computer's memory and are used instead of the segments contained in the P-Code peripheral.

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GENERAL INFORMATION

1.1 USING THIS MANUAL

This manual is designed for use as both an introduction to the Editor and as a reference document after you are familiar with the Editor. Section 1 gives general information about the Editor, including set-up instructions and special keys used by the System. Section 2 provides an overview of the Editor and describes the workfile concept, cursor use, screen position, the promptline, repeat factors, and global direction. Section 3 explains each of the Editor commands in alphabetical order, according to the letter you type to access them. Section 4 shows an example of using the Editor. The remainder of the manual contains service and warranty information.

1.2 SET-UP INSTRUCTIONS

The steps involved in accessing the Editor are included in this section. Please read this material completely before proceeding.

1. Be sure that the Memory Expansion unit, the P-Code peripheral, and the Disk Memory System are attached to the computer and turned on. (Refer to the appropriate owner's manual for product details.)
2. Insert the Editor diskette into a disk drive.
3. Turn on the monitor and computer console. The p-System promptline now appears. (**Note:** If you turn on the computer before inserting a diskette in a disk drive, you must insert a diskette and then press I to initialize the System before you can proceed.)
4. Press E for E(dit to load the Editor.
5. After the Editor is loaded, the screen displays the status of the current file. If a workfile is present, the computer reads it and then displays the Editor promptline and the contents of the file, ready for you to make any changes you may want. If a workfile is not present, you receive the message:

>Edit:

No workfile, File (<ret> for none)?

To start a new file, simply press <return> and the Editor promptline appears.

To load a previously saved file, insert the appropriate diskette into a disk drive (removing the Editor diskette if necessary), type the name of the file, and press <return>. The file is then loaded, and both it and the Editor promptline appear on the screen.

6. After the promptline appears, you are ready to create a new file or edit an existing file. Refer to Section 3 for an explanation of the Editor commands.

GENERAL INFORMATION

1.3 SPECIAL KEYS

A color-coded keyboard overlay for the TI-99/4 console and a two-level strip overlay for the TI-99/4A console are included with the P-Code peripheral to help you more easily identify certain keys that are used with the p-System. On the TI-99/4 console, certain keys are used in combination with the SHIFT and SPACE keys; while on the TI-99/4A console, certain keys are used in combination with the FCTN and CTRL keys. Note that, as you read the manual and use the Editor, the < and > symbols indicate function keys to be pressed and not information to be typed. For your convenience, the function keys available with the Editor are summarized here.

<u>Name</u>	<u>TI-99/4</u>	<u>TI-99/4A</u>	<u>Action</u>
	SHIFT F	FCTN 1	Deletes a character in the X(ch (exchange) mode.
<ins>	SHIFT G	FCTN 2	Inserts a character in the X(ch (exchange) mode.
<break>	SPACE 4	FCTN 4	Stops the program so that the System can be re-initialized.
<stop>	SPACE 5	FCTN 5	Suspends the program until this key is pressed again.
<alpha lock>	SPACE 6	FCTN 6	Acts as a toggle to convert lower-case letter input to upper-case and back again.*
<screen left>	SPACE 7	FCTN 7	Moves the displayed text to the left 20 columns at a time.
<screen right>	SPACE 8	FCTN 8	Moves the displayed text to the right 20 columns at a time.
<line del>	SHIFT Z	FCTN 9	Deletes the current line of information.
{	SPACE 1	FCTN F	Types the left brace {.
}	SPACE 2	FCTN G	Types the right brace }.
[SPACE 9	FCTN R	Types the left bracket [.
]	SPACE 0	FCTN T	Types the right bracket].
<etx>	SHIFT C	CTRL C	Exits the current command and accepts the changes.
<esc>	SPACE .	CTRL .	Exits the current command and ignores the changes.
<tab>	SHIFT A	CTRL I	Moves the cursor to the next tab.
<up-arrow>	SHIFT E	FCTN E	Moves the cursor up one line.
<left-arrow> or <backspace>	SHIFT S	FCTN S	Moves the cursor to the left one character.

<u>Name</u>	<u>TI-99/4</u>	<u>TI-99/4A</u>	<u>Action</u>
<right-arrow>	SHIFT D	FCTN D	Moves the cursor to the right one character.
<down-arrow>	SHIFT X	FCTN X	Moves the cursor down one line.
<return>	ENTER	ENTER	Tells the computer to accept the information you type.

*Note that, with the TI-99/4A console, you can press <alpha lock> to select lower-case characters (the default mode when the computer is turned on) and can then press the SHIFT or ALPHA LOCK key on the keyboard to select upper-case characters. With the TI-99/4 console, pressing <alpha lock> is the only toggle available for converting from lower-case letters to upper-case letters and back again.

SECTION 2: USING THE EDITOR

The p-System Editor is a screen-oriented editor, which means that you can edit any of the text shown on the screen. The screen has 23 80-character lines. (Note that, although the screen actually has 24 lines, the top line is reserved for the promptline and thus cannot be used for text.) With the cursor movement capabilities of the Editor, you can edit any portion of the screen text.

The Editor provides access only to the file that is currently loaded. To edit a file that is stored, you must first save the file in use if you do not want to lose its contents and then load the file you wish to edit. (See the UCSD p-System Filer manual for details.)

Before using the Editor, you should be familiar with certain concepts relating to its operation. These concepts are the workfile, cursor use, screen position, the promptline, repeat factors, and global direction. All of these are explained in the following sections.

2.1 WORKFILE

The workfile, if present, is the file which is automatically loaded for editing when you select the Editor. To designate an existing file as the workfile, use the Filer's G(et command (see the UCSD p-System Filer manual).

When you finish editing a file and leave the Editor, selecting the U(pdate option of the Q(uit command creates a temporary workfile named SYSTEM.WRK.TEXT. The System considers any file by that name to be "unsaved." Select the Filer's S(ave command to give SYSTEM.WRK.TEXT a permanent name (see the UCSD p-System Filer manual). However, if you select the W(rite option of the Q(uit command, SYSTEM.WRK.TEXT is not created and an unsaved workfile does not exist.

When you enter the Editor, the current workfile is displayed. If no workfile exists, the Editor lets you create a new file. In some cases you may want to edit a file other than the workfile; if so and if no workfile exists, you can load an existing file. If an unsaved workfile exists, save it with the S(ave command (see the UCSD p-System Filer manual) before another file can be loaded.

2.2 CURSOR

The cursor appears on the screen as a flashing black square to show you your exact position within the file. As you insert and delete text, it is important to remember that the cursor is logically in front of and not over the character as it appears on the screen.

2.2.1 Cursor Movement

As you edit a file, the cursor must be located at the position where the change is to take place. To help you accomplish this, several keys are available for cursor movement.

- Arrow keys -- Move the cursor in the direction indicated by the arrows.
- <spacebar> -- Moves the cursor in the direction given by the global direction indicator (see Section 2.5).
- <return> -- Moves the cursor to the beginning of the next line as determined by the global direction.
- <tab> -- Moves the cursor to the next tab position in the direction indicated by the global direction.
- Equals sign (=) -- Moves the cursor to the beginning of the last section of text that was inserted, found, or replaced, and sets the equals sign to the cursor's location.

In addition to the cursor movement keys, two of the Editor's commands are designed specifically to move the cursor. J(ump moves the cursor to the beginning or end of the file or to a previously defined marker (see Section 3.6). P(age moves the information in the file up or down one screen at a time (see Section 3.9). Other commands are also related to cursor movement as explained in the appropriate sections of the manual.

2.3 SCREEN POSITION

Although the lines in a file can be up to 80 characters in length, the screen only displays 40 columns (characters) at a time. To see the rest of a line, press <screen left> or <screen right> and the contents "move" to the left or right 20 columns at a time. Thus, if the beginning of a line is displayed, pressing <screen right> once shows the 40 middle columns of the line and pressing <screen right> again shows the last 40 columns. To return to the beginning of the line, press <screen left> twice.

This feature gives you continuity as you read a line of text.

2.4 PROMPTLINE

When you enter the Editor, the first part of the list of the most commonly used Editor commands appears in the promptline at the top of the screen, as shown here.

```
>Edit: A(djst C(opy D(let F(ind I(nsrt
```

To see the remainder of the promptline, press the question mark key (?) and the following appears.

```
>Edit: J(mp K(ol R(plc Q(uit X(ch Z(ap
```

To display the first part of the line, press ? again.

In addition, the Editor has other commands that are not displayed on the promptline. When you select an Editor command, that command either performs a function immediately or displays its own promptline so that you can either perform a function and return to the Editor promptline or return to the Editor promptline without performing a function. All of the commands are explained in Section 3.

2.5 REPEAT FACTORS

By including a repeat factor with a command, you tell the Editor to repeat the command the number of times indicated by the factor. The factor can be either a number, representing how many repetitions are to be performed, or a slash (/), which repeats the command until the end (or beginning - see Section 2.6) of the file is reached.

The repeat factor can be entered before you select the F(ind, P(age, or R(plc command. If so, it tells the Editor to perform the command the specified number of times. The repeat factor can also be used with the cursor movement keys when the Editor promptline is displayed or when you have selected the A(djst, D(let, or K(ol command. Specifying a repeat factor before pressing the arrow keys tells the Editor how many characters to move to the left or right, or how many lines to move up or down.

2.6 GLOBAL DIRECTION

The global direction for the Editor commands is indicated by a ">" or "<" symbol at the beginning of the promptline. When the ">" symbol appears, the global direction is forward. Then, if you select a command, such as F(ind, the cursor moves from its current position towards the end of the file. If the "<" symbol appears at the beginning of the promptline, the direction is backward so that the cursor moves from its current position towards the beginning of the file.

When you first enter the Editor, the global direction is forward (>). To change it to backward, simply press "<", ",", or "-" when the Editor promptline is displayed. To change it to forward again, press ">", ".", or "+".

SECTION 3: EDITOR COMMANDS

The Editor commands are explained in this section in alphabetical order, according to the letter you press to access them. For your convenience, each command is listed here with its corresponding section number and an indication as to whether or not it appears on the promptline. **Note:** An example illustrating the use of the various Editor commands is given in Section 4.

<u>Command</u>	<u>Section</u>	<u>On Promptline?</u>
A(djst	3.1	yes
C(opy	3.2	yes
D(let	3.3	yes
F(ind	3.4	yes
I(nsrt	3.5	yes
J(mp	3.6	yes
K(ol	3.7	yes
M(argin	3.8	no
P(age	3.9	no
Q(uit	3.10	yes
R(plc	3.11	yes
S(et	3.12	no
X(ch	3.13	yes
Z(ap	3.14	yes

3.1 A(djst

The A(djst (adjust) command lets you adjust the indentation of the lines on the display. In addition, you can use a repeat factor with the command to adjust several lines at a time. This command is useful for indicating nesting within a program.

To access the A(djst command, position the cursor at the start of the first line to be adjusted and press **A** from the Editor promptline. The A(djst promptline is then displayed.

>Adjst: L(ft R(ght C(ntr <arrows> <etx> to leave

With any of the A(djst commands, you can align a group of lines. To do this, press <left-arrow> or <right-arrow> to adjust the first line horizontally. Then press <up-arrow> or <down-arrow> and the preceding or following line, respectively, is adjusted by the same amount as the first line. Continue to move the cursor up or down to adjust other lines of the file. After a line is adjusted, the cursor appears at the beginning of that line.

3.1.1 L(ft

The L(ft (left-justify) command lets you move the line on which the cursor is positioned so that the first character is on the left margin. To change the left margin, use the E(nvironment option of the S(et command (see Section 3.12.1.3).

3.1.2 R(ght

The R(ght (right-justify) command lets you move the line on which the cursor is positioned so that the last character is on the right margin. To change the right margin, use the E(nvironment option of the S(et command (see Section 3.12.1.3).

3.1.3 C(ntr

The C(ntr (center) command centers the line on which the cursor is positioned between the left and right margins. To change the margins, use the E(nvironment option of the S(et command (see Section 3.12.1.3).

3.1.4 <arrows>

Pressing the arrow keys moves the line on which the cursor is positioned left or right one character at a time or up or down one line at a time.

EDITOR COMMANDS

3.1.5 <etx>

Pressing <etx> returns the Editor promptline to the display.

3.2 C(opy

The C(opy command lets you copy text from the copy buffer or another file into the file being edited. The contents of the copied file are not changed. Note that the command does not allow repeat factors. This command is useful for copying a subprogram in an existing file into the program in the file being edited.

To access the C(opy command, move the cursor to the position where you want the copy to start and press **C** from the Editor promptline. The C(opy promptline is then displayed.

>Copy: B(uffer F(ile <esc>

3.2.1 B(uffer

The B(uffer command copies text from the copy buffer into the file. Press **B** and the copy begins from the location of the cursor. After the copy is completed, the cursor appears at the end of the copied text.

Information is placed in the copy buffer as a result of the D(let, I(nsert, or Z(ap command. With the D(let (delete) command, the buffer receives the copy marked for deletion, regardless of whether or not it was actually deleted. With the I(nsert (insert) command, the buffer receives any copy that is actually inserted; when you escape from the command without inserting any text, the buffer is empty. With the Z(ap command, the buffer receives the deleted text.

3.2.2 F(ile

The F(ile command lets you copy text from another file into the file being edited. When you press **F**, the Editor asks:

>Copy: From file[marker,marker]?

Insert the appropriate diskette in the disk drive, type the name of the file you want to copy, and press <return>. That file is then copied into the file being edited.

EDITOR COMMANDS

By specifying markers, you can copy only a part of another file. First, the markers must be entered in the file with the M(arker option of the S(et command (see Section 3.12.2). Then type the filename followed by the markers in brackets ([]). To copy from the beginning of a file to a specified marker, enter the name as filename[,MARKER]. To copy from a marker to the end of the file, the format is filename[MARKER,].

3.2.3 <esc>

Pressing <esc> returns the Editor promptline to the display.

3.3 D(let

The D(let (delete) command lets you delete text from the file being edited. In addition, you can include repeat factors to delete more than one character or line at a time. This command is useful for deleting unwanted program statements.

To access the D(let command, position the cursor over the first character to be deleted and press **D** from the Editor promptline. The D(let promptline is then displayed.

>Delete: <arrows> {<etx> deletes, <esc> aborts}

If you move the cursor to delete text and then decide not to delete it, simply move the cursor back to its starting position and the characters reappear.

Note: The copy buffer, where the deleted text is stored, is limited in size. If the text to be deleted cannot all be saved in the buffer, the program displays the message:

No room to store, delete anyway? (y/n)

If you press **Y**, the copy is deleted with only a portion of it being stored so that some of the text is lost. If you press any key other than **Y**, you leave the D(let command without deleting any copy.

3.3.1 <arrows>

Pressing any of the cursor movement keys (see Section 2.2.1) moves the cursor, deleting characters as it goes. Pressing the <spacebar> moves the cursor in the direction specified by the global direction indicator. To move the cursor more than one character at a time, type a repeat factor before pressing a cursor movement key.

3.3.2 <etx> and <esc>

To leave the D(let command and delete the copy as indicated, press <etx>. To leave the D(let command without deleting any copy, press <esc>. In either case, the Editor promptline reappears after the key is pressed.

3.4 F(ind

The F(ind command locates specified words or characters (the "target" string) within the file. By typing a repeat factor before selecting the command, you can find the specified occurrence of the string. This command is useful for locating variable references within a program.

To access the F(ind command, position the cursor at the point where the search is to begin. Next, type the repeat factor (the default is 1) and press **F** from the Editor promptline. One of two F(ind promptlines, depending on the mode specified in the E(nvironment option of the S(et command (see Section 3.12.1.6), is then displayed.

>Find [n]: L(it <target>

or

>Find [n]: T(ok <target>

Note that n, L(it, and T(ok represent the repeat factor, literal mode, and token mode, respectively. If you enter a string that is not in the file, the following error message appears.

ERROR: Pattern not found. type <sp>

Pressing <sp> (the <spacebar>) leaves the F(ind command. The Editor promptline reappears.

The target string you enter must be preceded and followed by identical characters that are not a letter or number and do not appear in the string itself. These characters are called delimiters. Thus, if the target string is entered as /TODAY/, the string is TODAY and the delimiters are slashes.

In some situations, you may want to locate a previously specified target string with the F(ind command. If so, type S for "same" (without delimiters) instead of typing a target string. To see what the current target string is, use the E(nvironment option of the S(et command (see Section 3.12.1.7).

3.4.1 L(it

The L(it (literal) command places you in literal mode so that you can find occurrences of the target string, even if the string is part of a larger string or contains spaces. When the L(it command appears on the promptline, you are in token mode. If you are in token mode and want to find a target string in literal mode, type L. Next, type the target string preceded and followed by valid delimiters. After the second delimiter is typed, the cursor moves to the first character following the last target, as specified by the repeat factor.

3.4.2 T(ok

The T(ok (token) command places you in token mode so that you can find occurrences of the target string when the string is preceded and followed by a space or punctuation mark. When the T(ok command appears on the promptline, you are in literal mode. If you are in literal mode and want to find a target string in token mode, type T. Next, type the target string preceded and followed by valid delimiters. After the second delimiter is typed, the cursor moves to the first character following the last target, as specified by the repeat factor. (Note that token mode ignores spaces within the target string.)

3.4.3 <target>

To find a target string in the current mode (token or literal), type the string enclosed in valid delimiters. After the second delimiter is typed, the cursor moves to the first character following the target.

3.4.4 <esc>

To leave the F(ind command without locating a target string, press <esc>. The Editor promptline is then displayed.

EDITOR COMMANDS

3.5 I(nsrt

The I(nsrt (insert) command lets you add characters or text to the file. In addition, you select the I(nsrt command to create a new file. Note that repeat factors are not allowed.

To access the I(nsrt command, move the cursor to the position where you want the insertion to start, and press I from the Editor promptline. The I(nsrt promptline is then displayed.

>Insrt: [<bs>,,<etx> accepts, <esc> aborts]

As you type characters, including <return>, they are entered into the file. Any non-printing characters are displayed as question marks (?). Note that some of the E(nvironment options of the S(et command (see Section 3.12.1) affect the format of the text. For example, if auto-indent is true, each line of text is indented by the same amount. Otherwise, the cursor moves to the first position of the next line when <return> is pressed. Also, if filling is true, the Editor automatically moves any words that will not fit on the current line down to the next line. Otherwise, you must press <return> to indicate the end of a line. If you do not press <return> when filling is false, an exclamation point (!) is displayed in column 80 to indicate that more text exists even though it isn't shown. To see the additional text, break the line into two or more shorter lines.

To indicate the start of a new paragraph in your text when filling is true, press <return> twice. To specify the amount of indentation for a new paragraph or successive lines of text, press the <spacebar> or <left-arrow> keys after you press <return> and before you type any characters. The paragraph indentation can also be specified with the E(nvironment option of the S(et command.

3.5.1 <bs> and

You can correct the text as you type it by pressing <bs> (backspace) or (line delete). Pressing <line del> erases the entire line on which the cursor is positioned, and the cursor returns to the end of the preceding line. The <bs> command moves the cursor to the left, erasing one character at a time.

3.5.2 <etx> and <esc>

To leave the I(nsrt command and enter the inserted text into the file, press <etx>. To leave the I(nsrt command without entering the insertion, press <esc>.

3.6 J(mp

The J(mp (jump) command moves the cursor to a specified point in the file. Note that repeat factors are not allowed. This command is useful for positioning the cursor within the file so that changes can be made more easily.

To access the J(mp command, press **J** from the Editor promptline. The J(mp promptline is then displayed.

>JUMP: B(eginning E(nd M(arker <esc>

3.6.1 B(eginning

The B(eginning command moves the cursor to the beginning of the file, over the first character on the first line.

3.6.2 E(nd

The E(nd command moves the cursor to the end of the file, after the last character on the last line.

3.6.3 M(arker

With the M(arker command, you can move the cursor to any position in the file. When you press **M**, the Editor asks:

Jump to what marker?

To answer, type the name of the marker specified in the M(arker option of the S(et command (see Section 3.12.2), and press <return>. The cursor then moves to the location of that marker in the file.

If you enter an invalid marker, the following error message appears.

ERROR: Not found. type <sp>

Pressing <sp> (the <spacebar>) returns the Editor promptline to the screen.

EDITOR COMMANDS

3.6.4 <esc>

To leave the J(mp) command without moving the cursor, press <esc>.

3.7 K(ol

The K(ol (column) command lets you move text to the left or right one column at a time. Also, by including repeat factors, you can move the text more than one column at a time. This command is useful for indenting blocks of material in a program.

To access the K(ol command, position the cursor to the left of the first line to be moved and press **K** from the Editor promptline. The K(ol promptline is then displayed as shown here.

>Kolumn: <arrows> <etx>

3.7.1 <arrows>

The <arrows> move the text to the left or right without moving the cursor. When you press the <left-arrow> or <right-arrow> key, the line of text to the right of the cursor moves to the left or right one column at a time. Also, you can specify a repeat factor before pressing the arrow keys to move the text more than one column at a time. **Note:** Any characters that are moved beyond the left margin are lost.

To make the same columnar adjustment to preceding or following lines, simply press <up-arrow> or <down-arrow>.

3.7.2 <etx>

Press <etx> to leave the K(ol command and return to the Editor promptline.

3.8 M(argin

The M(argin command lets you adjust text to fit within the specified margins. Repeat factors are not allowed. This command is useful if you decide to change the left and/or right margins and then want to adjust the text to the new line length.

Before you can access the M(argin command, the A(uto indent option of the S(et E(nvironment command must be set to false and the F(illing option must be set to true (see Section 3.12.1). Next, move the cursor to the paragraph you want adjusted and press **M** from the Editor promptline. The Editor now realigns the paragraph in which the cursor is located to fit within the current margins (see Section 3.12.1.3). The first line is indented to the paragraph margin and all others are left-justified. (Note that a paragraph is any block of text preceded and followed by blank lines or the beginning or end of the file.) Occasionally, with a longer file the screen is blank for several seconds while the paragraph is adjusted. After the adjustment is completed, the paragraph is redisplayed. The M(argin command only breaks lines at spaces or hyphens, without splitting words.

As you make the paragraph adjustments, there may be some lines that you want to leave as they are. If so, simply insert the command character, such as a caret (see Section 3.12.1.4). When the M(argin command is selected, any lines beginning with command characters are treated as blank lines. **Note:** If you access the M(argin command when the cursor is positioned on a line starting with a command character, the character is ignored and that line is adjusted along with the others.

3.9 P(age)

The P(age) command displays the next page of the file. Also, by specifying a repeat factor before you select this command, you can skip to any page in the file. This command is useful for reviewing the contents of a lengthy file.

To access the P(age) command, set the global direction indicator in the direction you want to page, type a repeat factor if necessary, and press **P** from the Editor promptline. The program then displays the selected page of the file.

EDITOR COMMANDS

3.10 Q(uit

The Q(uit command lets you exit the file with the options of saving the file as the active workfile or as a named file. Repeat factors are not allowed. This command is useful for either saving the file when you finish your changes or returning to the Editor without saving the text if you change your mind.

To access the Q(uit command, press **Q** from the Editor promptline. The Q(uit prompts are then displayed.

>Quit:

- U(pdate the workfile and leave
- E(xit without updating
- R(eturn to the editor, no update
- W(rite to a file name and return

3.10.1 U(pdate

To update the workfile and leave the Editor, press **U** for U(pdate from the Q(uit promptline. The file as it currently exists is stored as SYSTEM.WRK.TEXT, making it the workfile for the next session with the Editor. After the file is saved, the program tells you the file's length in bytes and returns to the p-System promptline. This command is useful for saving a modified file as the workfile.

3.10.2 E(xit

To exit from the Editor without updating the file, press **E** for E(xit from the Q(uit promptline. The p-System promptline is then displayed. This command is useful for leaving the file as it was before you edited it. Note, however, that when you select the E(xit command, all changes you made to the file are lost unless you have previously saved them with the U(pdate or W(rite options.

3.10.3 R(eturn

To return to the Editor without updating the file, press **R** for R(eturn from the Q(uit promptline. The program then returns immediately to the Editor, with the cursor in the same position it was in when you pressed Q. This command is useful if you select the Q(uit command accidentally.

3.10.4 W(rite

To write the file to any filename and then return to the Editor promptline or the p-System promptline, press **W** for W(rite from the Q(uit promptline. The following promptline appears next.

>Quit:

Output file (<cr> to return)

At this point, you can write the file to either the workfile or another file. To write to the same file you were editing, type **\$** as the filename and press <return>. To write to a different file, type its filename and press <return>.

The Editor now writes to the specified file. After the file is written, the Editor tells you the file's length in bytes and displays the following prompt.

E(xit or R(eturn to the editor?

At this point, press either **E** or **R**, depending on the action you want to perform. Pressing **E** lets you exit from the Editor, while pressing **R** lets you return to the Editor.

Note: As you edit your file, it is a good idea to store it on the diskette periodically. To do this, press **Q** for Q(uit from the Editor promptline and press **W** for W(rite. Then type the filename as **\$** to write to the same file, and press <return>. After the file is written to the diskette, press **R** for R(eturn to the Editor.

EDITOR COMMANDS

3.11 R(plc

The R(plc (replace) command lets you locate specific words or characters (the "target" string) in the file and replace them with other words or characters (the "substitution" string). By including a repeat factor with the command, you can replace a specified number or all of the occurrences of the target string. This command is useful for changing variable names in a program.

To access the R(plc command, position the cursor at the point where the search is to begin. Next, type the repeat factor (the default is 1) and press **R** from the Editor promptline. One of two R(plc promptlines, depending on the mode specified in the E(nvironment option of the S(et command (see section 3.12.1.6), is then displayed.

>Replace [n]: L(it V(fy <targ> <sub>

or

>Replace [n]: T(ok V(fy <targ> <sub>

Note that n, L(it, T(ok, and V(fy represent the repeat factor, literal mode, token mode, and verify mode, respectively. If you enter a target string that is not in the file, the following error message appears.

ERROR: Pattern not found. type <sp>

Pressing <sp> (the <spacebar>) leaves the R(plc command. The Editor promptline reappears.

When you enter a target or substitution string, it must be preceded and followed by identical characters that are not a letter or number and do not appear in the string itself. These characters are called delimiters. Thus, if the target string is entered as /TODAY/, the string is TODAY and the delimiters are slashes.

In some situations, you may want to locate and replace a previously specified target or replacement string with the R(plc command. If so, type S for "same" (without delimiters) instead of a target or replacement string. To see the current target and substitution strings, refer to the E(nvironment option of the S(et command (Section 3.12.1.7).

3.11.1 L(it

The L(it (literal) command places you in literal mode so that you can find the occurrences of the target string and replace them with the substitution string, even if the target string is part of a larger string. When the L(it command appears on the promptline, you are in token mode. If you are in token mode and want to find and replace a target string in literal mode, type L. Next, type the target string enclosed in valid delimiters, followed by the substitution string enclosed in valid delimiters. After the last delimiter is typed, the replacements take place for the number of times indicated by the repeat factor, and then the cursor appears after the last string that was replaced.

3.11.2 T(ok

The T(ok (token) command places you in token mode so that you can find the occurrences of the target string and replace them with the substitution string when the target string is preceded and followed by a space or punctuation mark. When the T(ok command appears on the promptline, you are in literal mode. If you are in literal mode and want to find and replace a target string in token mode, type T. Next, type the target string enclosed in delimiters, followed by the substitution string enclosed in valid delimiters. After the last delimiter is typed, the replacements take place for the number of times indicated by the repeat factor, and then the cursor appears after the last string that was replaced. (Note that token mode ignores spaces within the strings.)

3.11.3 V(fy

The V(fy (verify) command lets you indicate whether or not you want to replace the target string with the substitution string, allowing you to change only selected occurrences of the target. To access the V(fy command, type V before typing the target string. Then, when a target string is found, the following promptline appears. (To specify a specific mode (literal or token), also type L or T, before the target string.)

>Replace [n]: R(plce S(ame <esc> aborts

Pressing <esc> leaves the R(plc command and redisplay the Editor promptline. Pressing **R** replaces the target string with the substitution string. The Editor then looks for the next target string. Pressing **S** leaves the target string unchanged; the Editor then looks for the next target string. When you press either **R** or **S**, the Editor continues to search for the next occurrence of the target string according to the repeat factor you specify.

3.11.4 <targ> and <sub>

To find a target string in the current mode (token or literal) and replace it with the substitution string, type the target string enclosed in valid delimiters, followed by the substitution string enclosed in valid delimiters. (Note that two delimiters are required between the target and substitution strings.) The replacements take place for the number of times indicated by the repeat factor, and the cursor appears after the last string that was replaced.

3.12 S(et

The S(et command lets you specify markers in, or change the environment of, the file. Repeat factors are not allowed. This command is useful for such functions as specifying markers to locate certain sections of the file; setting left, right, and paragraph margins to meet your format requirements; and indicating whether or not you want an automatic <return> at the end of each line.

Before accessing the S(et command, decide whether you are going to select the M(arker option or the E(nvironment option. If you want the M(arker option, move the cursor to the position where you want the marker, and press **S** from the Editor promptline. For the E(nvironment option, simply press **S** from the Editor promptline. With either option, the S(et promptline is then displayed.

>Set: E(nvironment M(arker <esc>

3.12.1 E(nvironment

The E(nvironment command allows you to set the file's environment, including indentations, automatic returns, margins, command characters, and literal or token mode. To access the E(nvironment command, press **E** from the S(et promptline, and the following display appears, showing the default values for the options and some additional information.

>Environment: {options} <sp> exits

A(uto indent True

F(illing False

L(eft margin 1

R(ight margin 80

P(ara margin 6

C(ommand ch ^

S(et tabstops

T(oken def True

100 bytes used, 13212 available.

Patterns:

<target> = 'xyz', <subst> = 'abc'

Created September 25, 1981

Last used November 15, 1981 (Revision 5)

EDITOR COMMANDS

To change an option, press the appropriate letter, and the value is erased so that a new one can be entered. To leave the E(nvironment option, press the <spacebar>. The Editor promptline is then displayed.

3.12.1.1 A(uto Indent

The A(uto indent option lets you specify whether or not each line of text should be indented by the same amount as the previous line. This option affects the I(nsert and M(argin commands.

To include the indentation feature, press **A** and type **T** for true. To omit the feature, press **A** and type **F** for false.

3.12.1.2 F(illing

The F(illing option lets you specify whether or not any words that do not fit on the current line are automatically moved down to the next line. This option affects the I(nsert and M(argin commands. To move the words without pressing <return>, press **F** and type **T**. To indicate the end of a line only by pressing <return>, press **F** and type **F**.

3.12.1.3 L(ef t Margin, R(igh t Margin, and P(ara Margin

The L(ef t, R(igh t, and P(ara (paragraph) margin options let you set the margins of the file. These options affect the A(djust command. If F(illing is true, they affect the I(nsert command; and if A(uto indent is false and F(illing is true, they affect the M(argin command. To set the margins, press **L**, **R**, or **P**; type the new values as a maximum of four digits; and press the <spacebar>.

3.12.1.4 C(ommand ch

The C(ommand ch (command character) option lets you select a character which indicates that the margins should not be adjusted on specific lines of the file. This option affects the M(argin command; if F(illing is true, it affects the I(nsert command. To change the command character, press **C** and type the new character.

3.12.1.5 S(et Tabstops

The S(et tabstops option lets you set the tab positions in the file. To set the tabs, press **S** and the following promptline appears.

Set tabs: <arrows> C(ol# {N(o R(ight L(eft D(ecimal stop} <etx>

A line giving the current tab positions is shown below the promptline. Under the line, the Editor displays the column number corresponding to the current location of the cursor. To move the cursor one column at a time, press the <left-arrow> or <right-arrow> key. To move the cursor several columns at a time, press **C**, type the column number where you want the cursor positioned, and press <return>. To indicate the type of tab, press **N** for no tabstop, or press **L**, **R**, or **D** to set the tabstop. Note that **R**, **L**, and **D** work identically in this version of the Editor. After you finish setting your tabs, press <etx> to return to the E(nvironment options display.

3.12.1.6 T(oken Def

The T(oken def (token definition) option lets you specify whether you want token mode or literal mode as the default mode for the F(ind and R(plc commands. To select token mode, press **T** and type **T**. To select literal mode, press **T** and type **F**.

3.12.1.7 Other Information

The E(nvironment option of the Editor also provides other information which is displayed below the options. First, you are shown the number of bytes of memory the file occupies and the number of bytes available. Below that, the last target and substitution strings you entered are displayed, along with any markers you have set. The last information given is the date the file was first filed and the date it was last filed, including the revision number (see the UCSD p-System Filer manual for details).

3.12.2 M(arker

The M(arker command lets you set markers in your file to make it easier to copy information from a specified location in a file, or to move to certain locations, particularly if your file is lengthy. After the marker is set, you can move the cursor to that location with the M(arker option of the J(mp command (see Section 3.6.3).

EDITOR COMMANDS

To set a marker, press **M** from the S(et) promptline and the program displays the following prompt.

Set what marker?

Type the marker name as a maximum of eight characters, and press <return>. The marker is then entered in the file at the location of the cursor. Note that the name you enter for the marker is distinguished only by the way it is spelled. Also, giving a marker a name used previously erases the old marker and moves it to the current position of the cursor.

Each file can contain a maximum of 20 markers. If you try to specify a twenty-first marker, the Editor tells you that you have too many markers and must replace one. The current markers are listed with their corresponding letters from a through t. To eliminate a marker, type its letter. A new marker can then take its place.

3.12.3 <esc>

To leave the S(et) command and return to the Editor promptline, press <esc>.

3.13 X(ch

The X(ch (exchange) command lets you type new characters, replacing the previous characters as you go. Repeat factors are not allowed. This command is useful for correcting typing errors easily.

To access the X(ch command, move the cursor to the position where you want the exchange to take place and press **X** from the Editor promptline. The X(ch promptline is then displayed as shown here.

```
>eXchange: Text <arrows> {<etx>,<esc>}
```

3.13.1 Text and <arrows>

After you select the X(ch command, any text that you type replaces any text on the screen, starting from the location of the cursor and moving to the right, regardless of the global direction indicator. To move the cursor without replacing any text, press the arrow keys, <return>, or <tab>. Pressing deletes the character under the cursor, and pressing <ins> inserts a space before the character under the cursor.

3.13.2 <esc> and <etx>

To leave the X(ch command without changing the last line altered, press <esc>. To leave the X(ch command and accept all changes, press <etx>. After you press <esc> or <etx>, the Editor promptline is displayed.

3.14 Z(ap

The Z(ap command deletes all text between the start of any information that was previously found, replaced, or inserted and the current position of the cursor. Repeat factors are not allowed. This command is useful for quickly deleting text.

Immediately before accessing the Z(ap command, the F(ind, R(plc, or I(nsr command must have been performed. After completing one of these three commands, move the cursor to the character preceding the first character to be zapped. (Instead of pressing the arrow keys, you can press the equals sign (=) and the cursor automatically moves to the beginning of the last text that was found, replaced, or inserted.) After the cursor is positioned, press Z from the Editor promptline. Next, if more than 80 characters are being zapped, the Editor asks you to press Y to verify the deletion. Upon verification, or if fewer than 80 characters are being zapped, the deletion occurs.

The deleted text is stored in the copy buffer if there is room for it. If not, the Editor asks if you want to Z(ap anyway. If so, press Y and the information is zapped. To leave the Z(ap command without deleting text, press N.

Note: The Z(ap command cannot be accessed after an A(djst, D(let, K(ol, or M(argin command is completed.

SECTION 4: EXAMPLE

The following example illustrates the editing commands available in the Editor. For a more detailed description of the commands, refer to Section 3 of this manual.

This example enters a sentence into a file, changes it and, adjusts its position on the screen. To perform the example, follow these step-by-step directions. Note that, because the example is designed to demonstrate all of the Editor commands, an easier way to edit the text may exist in some cases.

1. Load the Editor according to the Set-Up Instructions in Section 1.2. When the Editor promptline appears, press the arrow keys as necessary to move the cursor to the first position of the first blank line. Next, press **I** to select the **I**(nsrt command, and type the following sentence.

The Editor saves your time with its flexible editing features.

Now press <etx>.

2. Note that, since the sentence contains more than 40 characters, it doesn't all appear on the screen at the same time. To see preceding or following text, you could press <screen left> or <screen right>. However, for this example, break the line into two shorter lines so that all the information appears on a single display. To do this, press the arrow keys to move the cursor over the "f" in "flexible." Then press **I**. Now, press <return>, followed by pressing <etx>. The sentence should appear as shown here.

The Editor saves your time with its
flexible editing features.

3. Now change the word "saves" to "gives." In this case, only two letters need changing -- "sa" to "gi." To make the substitution, move the cursor to start of the sentence, and press **R** for **R**(plc.

If **L**(it appears on the **R**(plc promptline, type the following.

L/sa//gi/

EXAMPLE

If T(ok appears on the R(plc promptline, type the following.

/sa//gi/

Note that, with either mode, the case (upper or lower) of the target string must match the case of the displayed text. After you type the last slash with either of the above situations, the screen returns to the Editor promptline, the word "saves" is now "gives," and the cursor is over the "v" in "gives."

4. Next, delete the "r" in "your." First, move the cursor to the beginning of the sentence (file) by pressing **J** for J(mp and then pressing **B** for B(eginning. Next, use the F(ind command to find the desired character by entering 2 as the repeat factor (the "r" in "your" is the second "r" in the file) and pressing **F** for F(ind.

If L(it appears on the F(ind promptline, type the following.

L/r/

If T(ok appears on the F(ind promptline, type the following.

/r/

The cursor is now positioned over the space after the r. Press <left-arrow> once and then press **D** for D(elt. Next, move the cursor one position to the right, and press <etx>.

5. Now change the word "time" to "many." Move the cursor over the "t" in "time" and press **X** for X(ch. Then type the word "many" and press <etx>. The Editor promptline returns and the sentence is now as shown here.

The Editor gives you many with its
flexible editing features.

6. Since this sentence does not make sense, change it again by deleting "with its." Move the cursor over the "w" in "with" and press **D** for D(let. Then press <right-arrow> to move the cursor to the space after "its" and press <etx>. The sentence now reads as follows.

The Editor gives you many
flexible editing features.

7. To copy the deleted text back into the sentence, leave the cursor in its current position and press **C** for C(opy. Now press **B** for B(uffer and the sentence reappears as in Step 5. To remove "with its" again, press the equals sign (=) to move the cursor to the w in "with" and then press **Z** for Z(ap. The sentence reappears as in Step 6.
8. At this point, you are ready to position the text where you want it on the screen. For this example, simply indent the first line as if this were a paragraph. Move the cursor over the "T" in "The" by pressing **J** for J(ump and then pressing **B** for Beginning. Next, press **A** for A(djst. Now press <right-arrow> three times and press <etx>. The final result is shown here.

The Editor gives you many
flexible editing features.

9. Next, you can adjust the margins. To do this, select the E(nvironment option of the S(et command by pressing **S** and then **E**. When the Environment selections appear, press **A** for A(uto indent and type **F** for false. Next, follow the same procedure to set F(illing to true and R(ight margin to 30. When you finish, press the <spacebar>, and the Editor promptline appears.

To adjust the text to fit within the new margins, press **M** for M(argin and the sentence is displayed as shown here.

The Editor gives you
many flexible editing
features.

EXAMPLE

10. Now you can add a second page to the file. Press **J** for J(m)p and **E** for E(nd) to move the cursor to the end of the file. Then press **I** for I(nsert), followed by pressing <return> 21 times. Next, type the following sentence.

This is page 2.

Then press <etx>. At this point, move the cursor to the space preceding the sentence and press **K** for K(ol) to change the position of the new sentence. Now enter 6 as the repeat factor, and press <right-arrow>. The sentence moves six columns to the right. Next, press <etx> to return to the Editor promptline.

To return to the first page, press < to change the global direction indicator to backward and press **P** for P(age). To return to the second page, press > and then press **P**.

11. Now press **Q** for Q(uit) to leave the Editor, and then press **E** to E(xit) without updating. The p-System promptline reappears, and the example is deleted from the file in the Editor.

SECTION 5: IN CASE OF DIFFICULTY

1. Be sure that the diskette you are using is the correct one. Use the L(dir (list directory) command in the Filer to check for the correct diskette or program.
2. Ensure that your Memory Expansion unit, P-Code peripheral, and Disk System are properly connected and turned on. Be certain that you have turned on all peripheral devices and have inserted the appropriate diskette before you turn on the computer.
3. If your program does not appear to be working correctly, end the session and remove the diskette from the disk drive. Reinsert the diskette, and follow the "Set-Up Instructions" carefully. If the program still does not appear to be working properly, remove the diskette from the disk drive, turn the computer and all peripherals off, wait 10 seconds, and turn them on again in the order described above. Then load the program again.
4. If you are having difficulty in operating your computer or are receiving error messages, refer to the "Maintenance and Service Information" and "Error Messages" appendices in your User's Reference Guide or UCSD p-System P-Code manual for additional help.
5. If you continue to have difficulty with your Texas Instruments computer or the UCSD p-System Editor package, please contact the dealer from whom you purchased the unit or program for service directions.

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